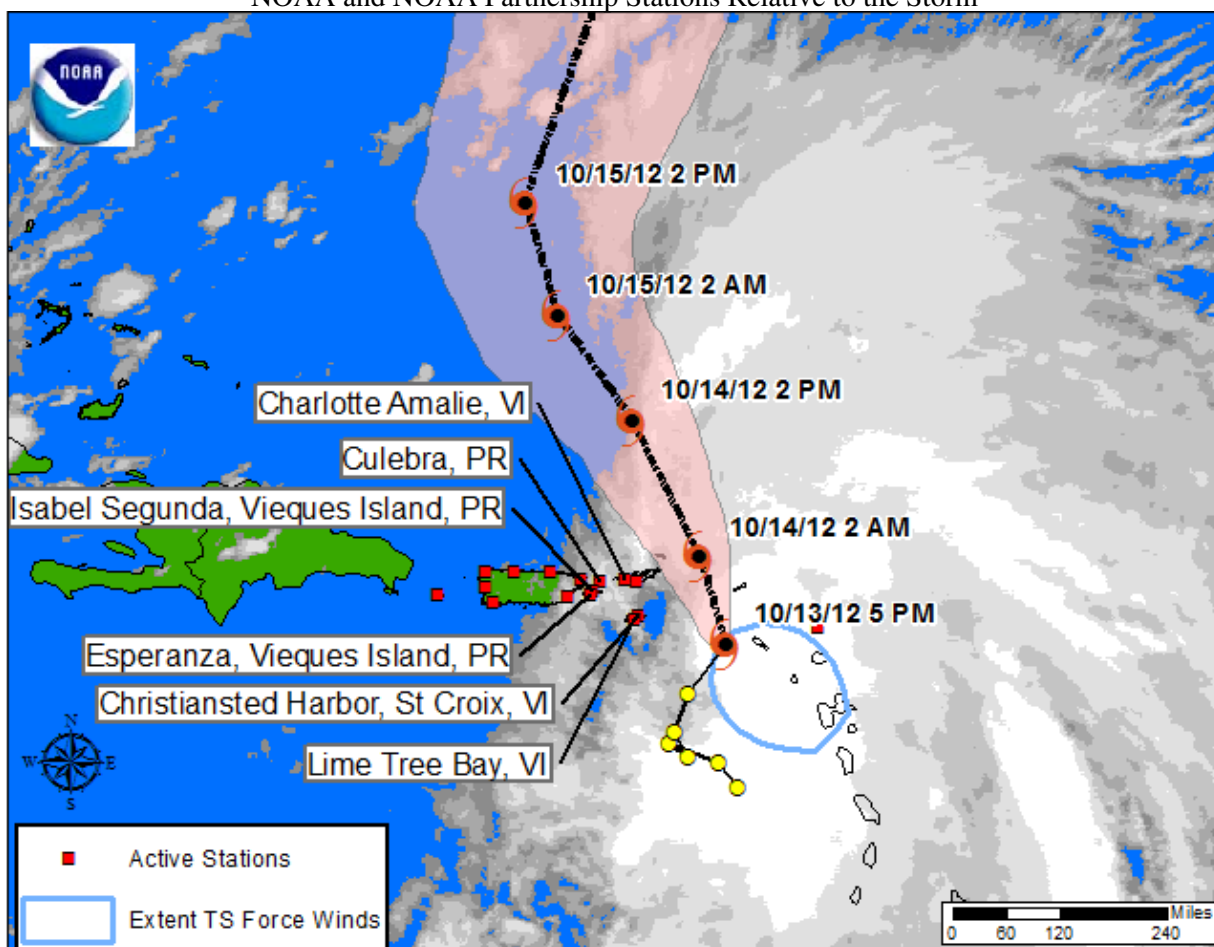


# Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012



Tropical Storm RAFAEL QuickLook  
Posted: 18:00 AST 10/13/2012

## NOAA and NOAA Partnership Stations Relative to the Storm



## Storm Analysis

As of 10/13/2012 18:00 AST, water levels across the U.S. Virgin Islands and Barbuda are slightly elevated and range from 0.4 to 0.8 feet above tidal predictions. Wind speeds are generally below 10 kts with slightly higher gusts. Barometric pressure continues to fall across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Lime Tree Bay, VI: Next predicted high tides are 0.8 ft (0.25 m) at 10/14/2012 08:31 AST and 0.9 ft (0.28 m) at 10/15/2012 09:30 AST.

Charlotte Amalie, VI: Next predicted high tides are 0.8 ft (0.24 m) at 10/13/2012 18:32 AST and 1.0 ft (0.31 m) at 10/14/2012 08:02 AST.

Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012

Culebra, PR: Next predicted high tides are 1.2 ft (0.35 m) at 10/13/2012 18:38 AST and 1.4 ft (0.43 m) at 10/14/2012 07:29 AST.

Isabel Segunda, Vieques Island, PR: Next predicted high tides are 1.1 ft (0.35 m) at 10/13/2012 18:53 AST and 1.4 ft (0.44 m) at 10/14/2012 07:41 AST.

Esperanza, Vieques Island, PR: Next predicted high tides are 0.6 ft (0.19 m) at 10/14/2012 07:21 AST and 0.4 ft (0.14 m) at 10/14/2012 17:16 AST.

Christiansted Harbor, St Croix, VI: Next predicted high tides are 0.7 ft (0.20 m) at 10/14/2012 07:50 AST and 0.4 ft (0.13 m) at 10/14/2012 17:50 AST.

For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see [Tidal Datums](#). For more information or archived products and reports, please see the [Storm QuickLook](#) Homepage.

Analyst:KG

-----  
SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM RAFAEL ADVISORY NUMBER 5  
500 PM AST SAT OCT 13 2012

...RAFAEL STRENGTHENS AS HEAVY RAIN AND GUSTY WINDS CONTINUE OVER  
PORTIONS OF THE LESSER ANTILLES...

WATCHES AND WARNINGS

-----  
CHANGES WITH THIS ADVISORY...

NONE

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- \* CULEBRA AND VIEQUES
- \* U.S. VIRGIN ISLANDS
- \* BRITISH VIRGIN ISLANDS
- \* ANGUILLA...BARBUDA...ST. KITTS... NEVIS...ANTIGUA...AND MONTSERRAT
- \* SABA...ST. EUSTATIUS...AND ST. MAARTIN
- \* ST. MARTIN
- \* GUADELOUPE...DESIRADE...LES SAINTES...MARIE GALANTE

A TROPICAL STORM WATCH IS IN EFFECT FOR...

- \* PUERTO RICO

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED  
SOMEWHERE WITHIN THE WARNING AREA...IN THIS CASE WITHIN THE NEXT 12 TO 24  
HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES... INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS... PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION SPECIFIC TO YOUR AREA OUTSIDE THE UNITED STATES... PLEASE MONITOR PRODUCTS ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

#### DISCUSSION AND 48-HOUR OUTLOOK

-----  
AT 500 PM AST...THE CENTER OF TROPICAL STORM RAFAEL WAS LOCATED NEAR LATITUDE 17.3 NORTH...LONGITUDE 63.3 WEST. RAFAEL IS MOVING TOWARD THE NORTH-NORTHEAST NEAR 12 MPH. A NORTHWARD MOTION IS EXPECTED TONIGHT FOLLOWED BY A TURN TOWARD THE NORTH- NORTHWEST ON SUNDAY. ON THE FORECAST TRACK...THE CENTER OF RAFAEL IS EXPECTED TO PASS NEAR THE NORTHERN WINDWARD ISLANDS AND THE VIRGIN ISLANDS TONIGHT.

DATA FROM AN AIR FORCE RESERVE HURRICANE HUNTER AIRCRAFT INDICATE THAT MAXIMUM SUSTAINED WINDS HAVE INCREASED TO NEAR 50 MPH... WITH HIGHER GUSTS. SOME ADDITIONAL STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS...AND RAFAEL COULD BECOME A HURRICANE BY LATE MONDAY.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 175 MILES...MAINLY TO THE SOUTHEAST OF THE CENTER. A NATIONAL OCEAN SERVICE STATION ON BARBUDA RECENTLY REPORTED A SUSTAINED WIND OF 34 MPH... AND A WIND GUST OF 40 MPH.

THE LATEST MINIMUM CENTRAL PRESSURE MEASURED BY THE AIRCRAFT WAS 1004 MB.

#### HAZARDS AFFECTING LAND

-----  
RAINFALL...RAFAEL IS EXPECTED TO PRODUCE TOTAL RAINFALL AMOUNTS OF 3 TO 5 INCHES... WITH ISOLATED MAXIMUM AMOUNTS OF 10 INCHES...OVER THE LESSER ANTILLES...THE VIRGIN ISLANDS...CULEBRA AND VIEQUES. THESE RAINS COULD CAUSE LIFE-THREATENING FLASH FLOODS AND MUDSLIDES... ESPECIALLY IN AREAS OF MOUNTAINOUS TERRAIN.

WIND...TROPICAL STORM CONDITIONS WILL CONTINUE TO SPREAD ACROSS THE WARNING AREA TONIGHT. TROPICAL STORM CONDITIONS ARE POSSIBLE OVER PUERTO RICO TONIGHT AND SUNDAY.

SURF...DANGEROUS SURF CONDITIONS ARE POSSIBLE IN THE LESSER ANTILLES AND THE VIRGIN ISLANDS THROUGH SUNDAY.

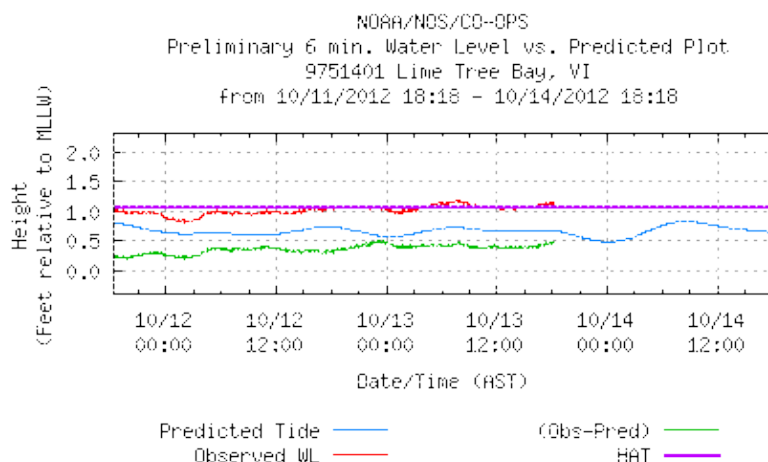
STORM SURGE...A STORM SURGE OF 1 TO 2 FEET ABOVE NORMAL TIDE LEVELS IS POSSIBLE IN AREAS OF ONSHORE FLOW IN THE WARNING AREA.

FORECASTER BRENNAN

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Lime Tree Bay - Water Level](#), [Lime Tree Bay - Winds](#), [Lime Tree Bay - Barometric](#), [Charlotte Amalie - Water Level](#), [Charlotte Amalie - Winds](#), [Charlotte Amalie - Barometric](#), [Culebra - Water Level](#), [Culebra - Winds](#), [Culebra - Barometric](#), [Isabel Segunda](#), [Vieques Island - Water Level](#), [Isabel Segunda](#), [Vieques Island - Winds](#), [Esperanza](#), [Vieques Island - Water Level](#), [Esperanza](#), [Vieques Island - Winds](#), [Esperanza](#), [Vieques Island - Barometric](#), [Christiansted Harbor](#), [St Croix - Water Level](#), [Christiansted Harbor](#), [St Croix - Winds](#),

Lime Tree Bay, VI - Return to List

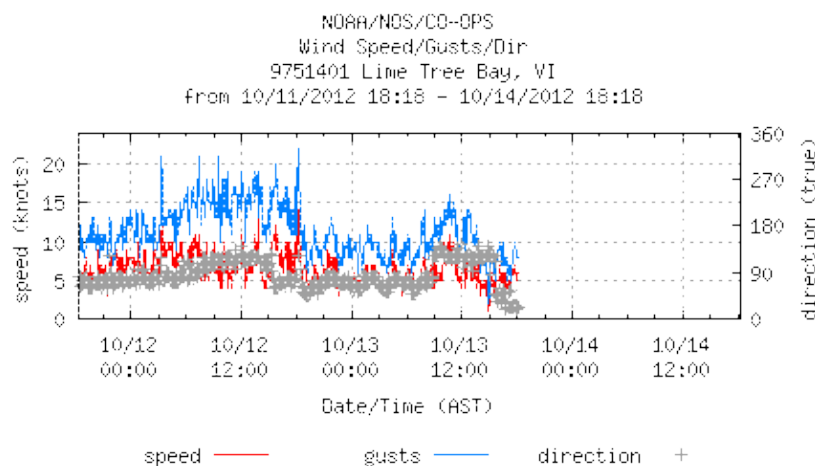


Last Observed Sample: 10/13/2012 18:12 (AST)

Relative to MLLW: **Observed: 1.13 ft.** **Predicted: 0.67 ft.** **Residual: 0.46 ft.**

Historical Maximum Water Level: Nov 17 1999, 1.88 ft. above MHHW

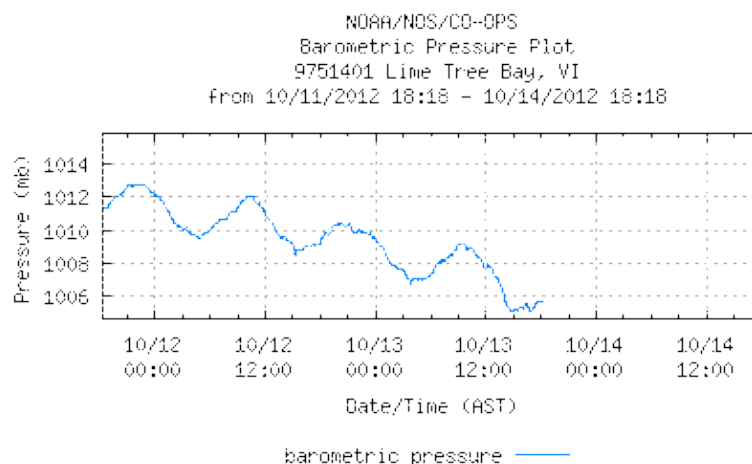
Lime Tree Bay, VI - Return to List



Last Observed Sample: 10/13/2012 18:06 (AST)

**Wind Speed: 6 knots** **Gusts: 8 knots** **Direction: 22° T**

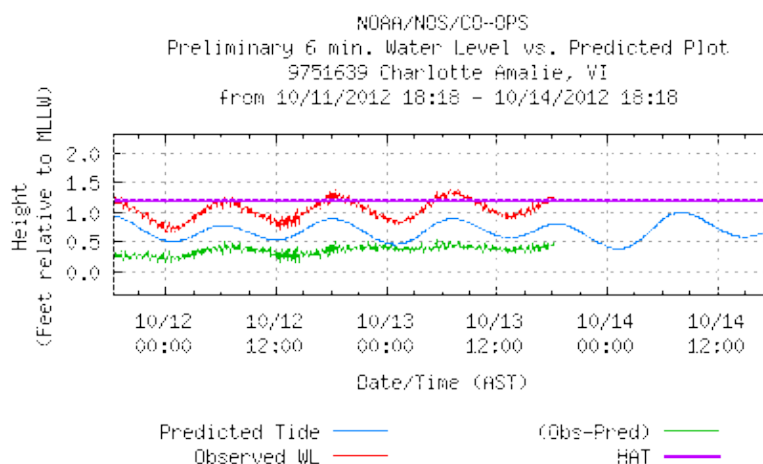
Lime Tree Bay, VI - Return to List



Last Observed Sample: 10/13/2012 18:06 (AST)

Barometric Pressure: 1005.7 mb

Charlotte Amalie, VI - Return to List



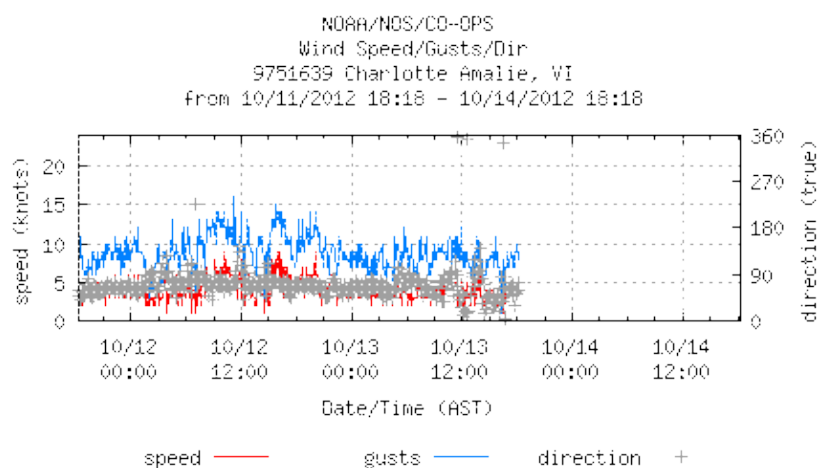
Last Observed Sample: 10/13/2012 18:12 (AST)

Relative to MLLW: **Observed: 1.24 ft.** **Predicted: 0.80 ft.** **Residual: 0.44 ft.**

Historical Maximum Water Level: Sep 16 1995, 2.93 ft. above MHHW

# Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012

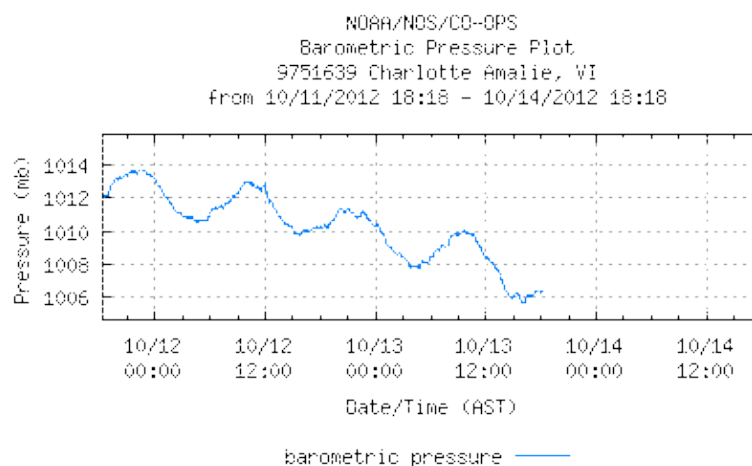
## Charlotte Amalie, VI - Return to List



Last Observed Sample: 10/13/2012 18:12 (AST)

Wind Speed: 4 knots Gusts: 8 knots Direction: 61° T

## Charlotte Amalie, VI - Return to List

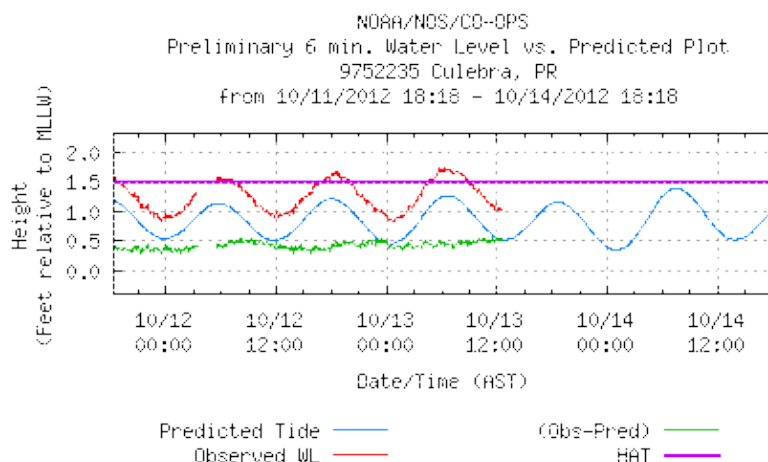


Last Observed Sample: 10/13/2012 18:12 (AST)

Barometric Pressure: 1006.3 mb

Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012

Culebra, PR - Return to List

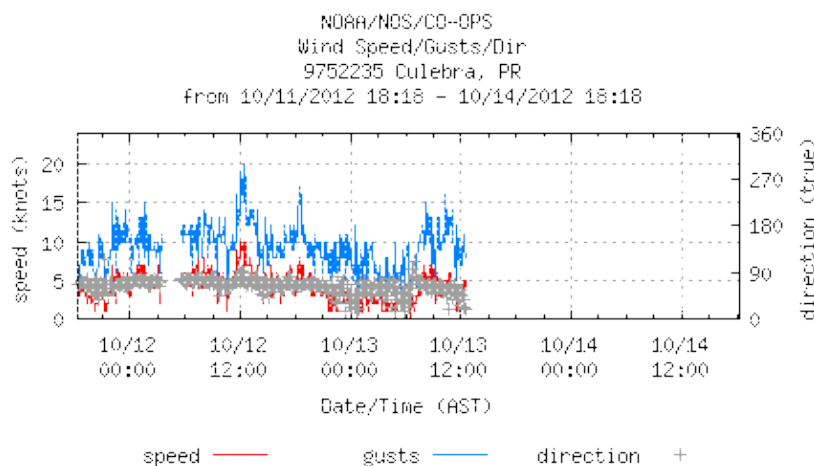


Last Observed Sample: 10/13/2012 12:30 (AST)

Relative to MLLW: **Observed: 1.03 ft.** **Predicted: 0.52 ft.** **Residual: 0.51 ft.**

Historical Maximum Water Level: Nov 6 2006, 0.85 ft. above MHHW

Culebra, PR - Return to List

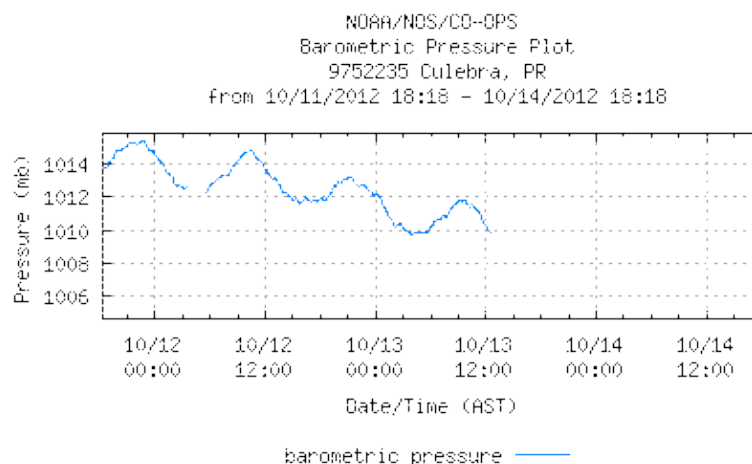


Last Observed Sample: 10/13/2012 12:30 (AST)

**Wind Speed: 5 knots** **Gusts: 8 knots** Direction: 19° T



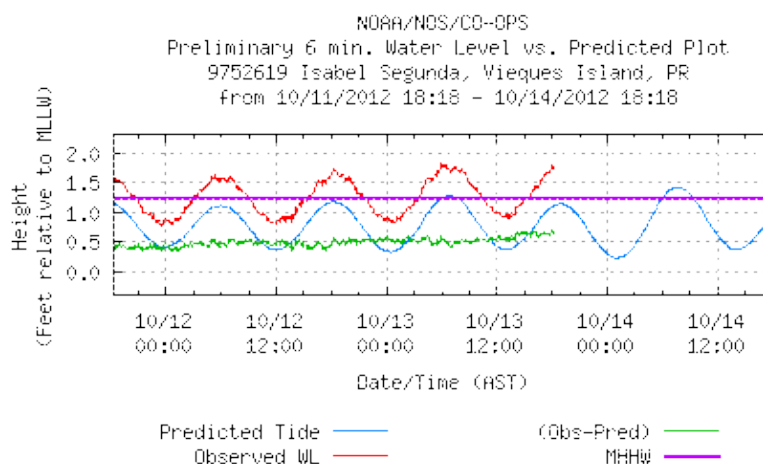
Culebra, PR - Return to List



Last Observed Sample: 10/13/2012 12:30 (AST)

Barometric Pressure: 1009.9 mb

Isabel Segunda, Vieques Island, PR - Return to List

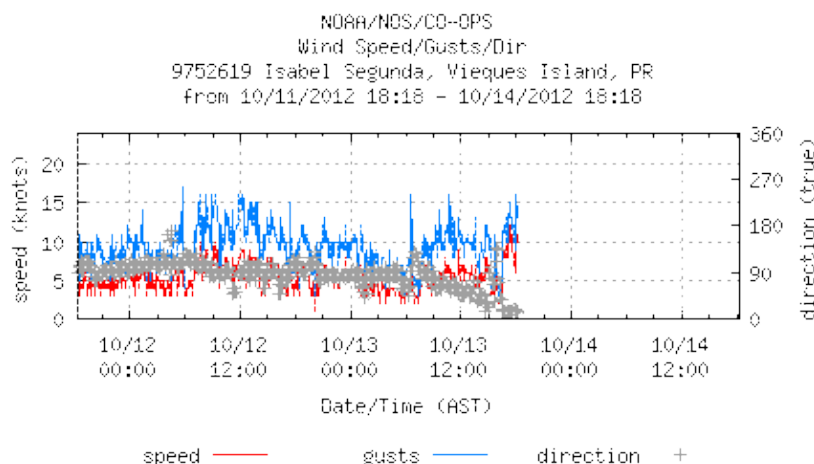


Last Observed Sample: 10/13/2012 18:12 (AST)

Relative to MLLW: **Observed: 1.75 ft. Predicted: 1.11 ft. Residual: 0.64 ft.**

Historical Maximum Water Level: , 0 ft. above MHHW

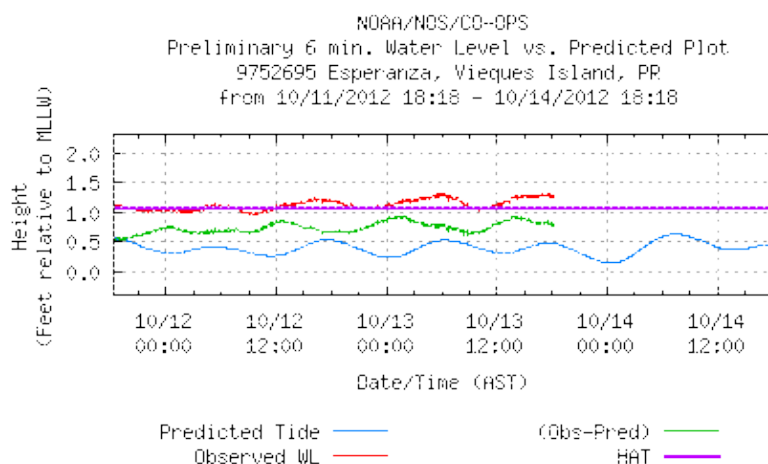
Isabel Segunda, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 18:12 (AST)

Wind Speed: 10 knots Gusts: 13 knots Direction: 15° T

Esperanza, Vieques Island, PR - Return to List



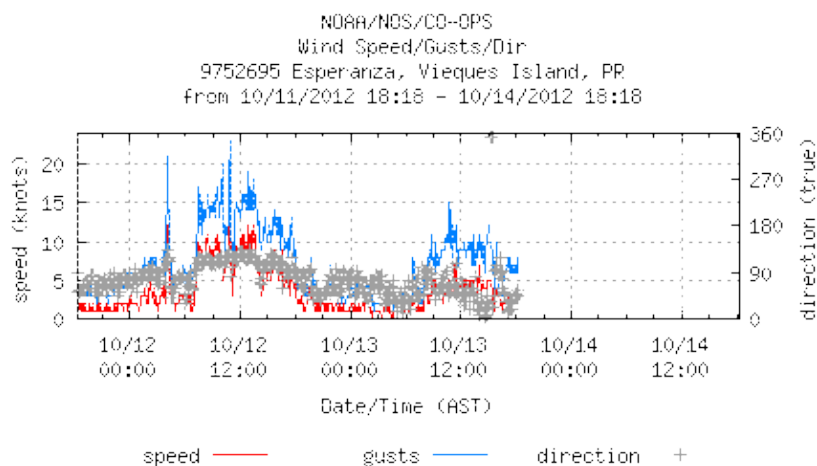
Last Observed Sample: 10/13/2012 18:12 (AST)

Relative to MLLW: Observed: 1.27 ft. Predicted: 0.47 ft. Residual: 0.80 ft.

Historical Maximum Water Level: Aug 22 2011, 1.04 ft. above MHHW

## Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012

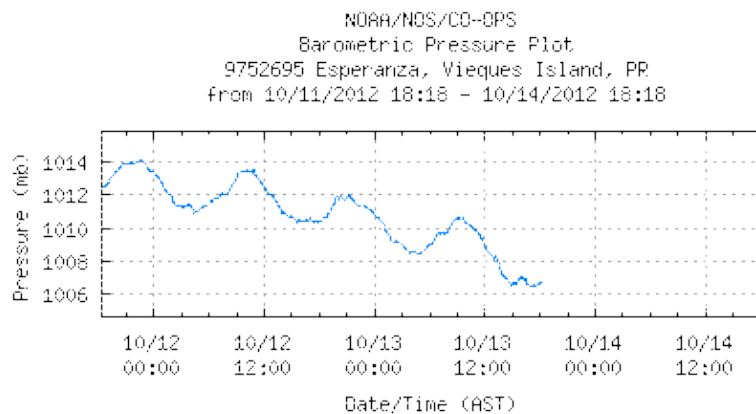
### Esperanza, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 18:12 (AST)

Wind Speed: 3 knots Gusts: 6 knots Direction: 43° T

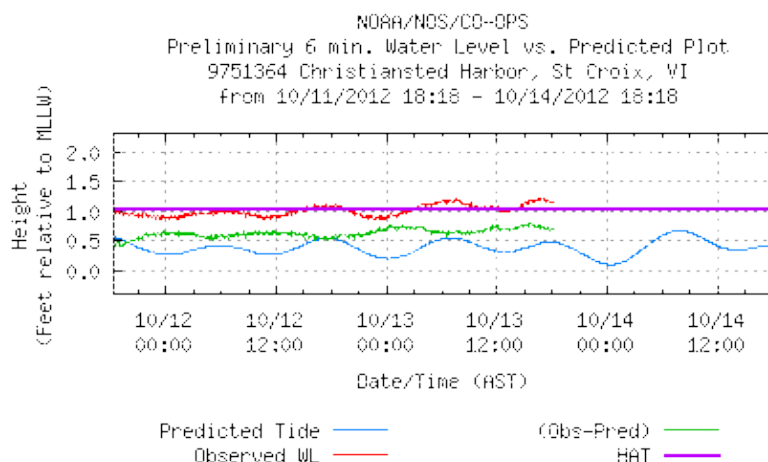
### Esperanza, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 18:12 (AST)

Barometric Pressure: 1006.7 mb

Christiansted Harbor, St Croix, VI - Return to List

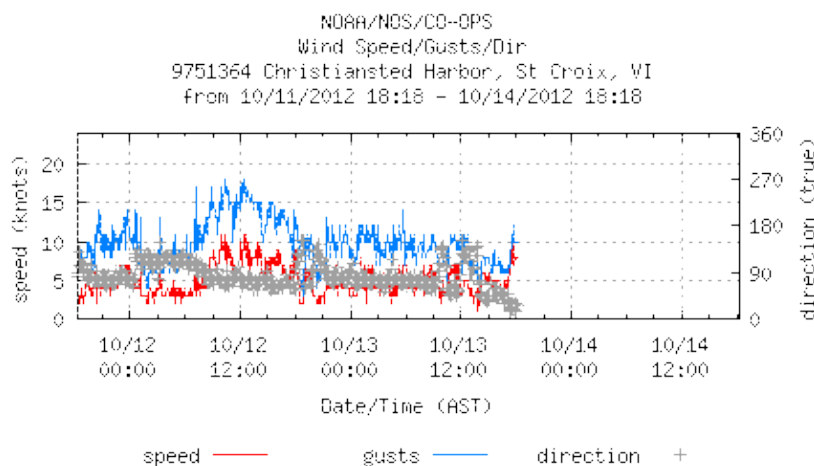


Last Observed Sample: 10/13/2012 18:06 (AST)

Relative to MLLW: **Observed: 1.16 ft.** **Predicted: 0.47 ft.** **Residual: 0.69 ft.**

Historical Maximum Water Level: Oct 16 2008, 1.17 ft. above MHHW

Christiansted Harbor, St Croix, VI - Return to List



Last Observed Sample: 10/13/2012 18:06 (AST)

**Wind Speed: 8 knots** **Gusts: 10 knots** **Direction: 25° T**

Tropical Storm RAFAEL QuickLook, POSTED 18:00 AST 10/13/2012

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)  
National Oceanic and Atmospheric Administration | U.S. Department of Commerce